STATE OF CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD SAN FRANCISCO BAY REGION

STAFF SUMMARY REPORT (John Madigan) MEETING DATE: July 12, 2017

ITEMS:

6 and 7

SUBJECT:

Lehigh Southwest Cement Company and Hanson Permanente Cement, Inc., Permanente Plant, Cupertino, Santa Clara County –

Amendment of NPDES Permit and Cease and Desist Order

CHRONOLOGY:

March 2014 – NPDES permit adopted

March 2014 – Cease and desist order adopted

DISCUSSION:

This Revised Tentative Permit Amendment (Appendix A) and Revised Tentative Cease and Desist Order (CDO) Amendment (Appendix B) would amend the existing NPDES permit and CDO for Lehigh's Permanente Plant, a limestone and rock quarry that has produced cement and construction aggregate since 1939. The plant discharges quarry dewatering water, cement manufacture process wastewater, truck and equipment wash water, aggregate crushing and washing water, and industrial stormwater to upper Permanente Creek. The Board adopted the permit in 2014, and, because Lehigh could not immediately comply with the permit, the Board also adopted the CDO, which requires Lehigh to reconfigure the site and construct a treatment system to treat all process wastewater by October 1, 2017.

In January 2016, Lehigh requested amendments to the permit and CDO to account for changes to the treatment system design and process flow configuration. The changes are needed to ensure adequate space for the treatment units and to manage onsite flows efficiently. The proposed permit amendment would therefore update the process flow configuration; allow Lehigh to move the treatment system to a lower elevation, where there is more space; and authorize discharges to Permanente Creek closer to that location. It would also remove effluent limitations and monitoring requirements for Discharge Point No. 003 because Lehigh no longer discharges process wastewater or industrial stormwater there.

The proposed CDO amendment would update the CDO for consistency with the permit, if amended. If approved, both amendments would necessitate updating a 2015 consent decree between Lehigh, U.S. EPA, and the Board. The revised tentative orders would not take effect until the Court approves the revised consent decree.

We received a number of comments (Appendix C) on the tentative orders. Several raised concerns that relocating the treatment system discharges downstream might harm existing Permanente Creek beneficial uses by reducing flows upstream. As we explain in our Response to Comments

(Appendix D), we revised the tentative permit amendment to enable Lehigh to discharge to multiple locations and to require it to provide sufficient upstream discharges to protect existing beneficial uses until creek restoration begins. We anticipate receiving testimony from the commenters during the hearing.

RECOMMEN- DATIONS:

Adopt the Revised Tentative Permit Amendment; then adopt the Revised

Tentative CDO Amendment

CIWQS:

Place ID 273205

APPENDICES:

A. Revised Tentative Permit Amendment

B. Revised Tentative CDO Amendment

C. Comment Letters

D. Response to Comments

Appendix A Revised Tentative Permit Amendment

California Regional Water Quality Control Board San Francisco Bay Region

Revised Tentative Order No. R2-2017-00XX

Amendment of Order No. R2-2014-0010
(NPDES No. CA0030210)
for Lehigh Southwest Cement Company and
Hanson Permanente Cement, Inc.,
Permanente Plant
Cupertino, Santa Clara County

WHEREAS the California Regional Water Quality Control Board, San Francisco Bay Region (Regional Water Board), finds the following:

- 1. Lehigh Southwest Cement Company (Discharger) owns and operates the Permanente Plant (Facility), located at 24001 Stevens Creek Blvd., Cupertino; the Discharger mines limestone and rock, and produces cement and construction aggregate, at the Facility.
- 2. On March 20, 2014, the Regional Water Board adopted Order No. R2-2014-0010 (NPDES Permit No. CA0030210, Permit), which serves as Waste Discharge Requirements and regulates point source discharges from the Facility to Permanente Creek.
- 3. The Fact Sheet (Attachment 1) contains background information and rationale for this Order's requirements and is hereby incorporated into and constitutes findings for this Order; it provides information about the Facility. Permit Table 1 and Permit Fact Sheet (Permit Attachment F) sections I and II provide additional information.
- 4. The Permit requires the Discharger to construct a final treatment system capable of treating all quarry pit water, process wastewater, and stormwater commingled with process wastewater discharged from the Facility. The final treatment system will use biological treatment, ultra-filtration, and reverse osmosis technologies to remove metals from these flows and then gravity-drain the treated flows to Permanente Creek via Discharge Point No. 001.
- 5. Permit Attachment C, page C-3, specifies a location for the final treatment system and a final process flow configuration for the Facility. However, changes to the final treatment system design since 2014 necessitate different locations for the treatment system and Discharge Point No. 001 and a revised final process flow configuration to ensure adequate area for treatment units, adaptability to changing Facility conditions, and efficient flow management.
- 6. When the Regional Water Board adopted the Permit, the Discharger was sending process-related flows to Pond 9 (see Permit Attachment F, section II) for treatment and discharge to Permanente Creek at Discharge Point No. 003; the Discharger has discontinued this practice to comply with the Permit and to protect subsequently discovered California Red-Legged Frogs in Pond 9. The Discharger now diverts these flows to the final treatment system. The only remaining inputs to Pond 9 and discharges from Discharge Point No. 003 comprise

- upwelled groundwater and creek water, rain that falls directly into the pond, and runoff from the directly adjacent hillside.
- 7. This Order amends the Permit to revise the final treatment system design and final process flow configuration, including redirection of flows previously sent to Pond 9 and discharged at Discharge Point No. 003.
- **8.** Pursuant to Water Code section 13389, this Order authorizes discharges only and is thus exempt from the provisions of the California Environmental Quality Act. This Order does not authorize construction or alteration of the treatment systems and related appurtenances.
- 9. The Regional Water Board notified the Discharger and interested agencies and persons of its intent to amend the Permit and provided an opportunity to submit written comments and recommendations. The Fact Sheet for this Order provides details regarding the notification.
- **10.** The Regional Water Board, in a public meeting, heard and considered all comments pertaining to the amendment. The Fact Sheet for this Order provides details regarding the public hearing.

IT IS HEREBY ORDERED, pursuant to the provisions of California Water Code Division 7 (commencing with § 13000) and regulations adopted thereunder, and the provisions of the federal Clean Water Act and regulations and guidelines adopted thereunder, that the Discharger shall comply with the Permit as amended by this Order. The Permit changes are shown below with <u>underline</u> for additions and <u>strikethrough</u> for deletions:

- 1. Replace Permit Attachment B, page B-2, with Attachment 2 of this Order ("Facility Map").
- 2. Replace Permit Attachment C, page C-3, with Attachment 3 of this Order ("Revised Final Line Drawing of Flows; Final Treatment Flow Configuration").
- 3. Revise Permit Table 2 as follows:

Table 2. Discharge Locations

| Discharge Point | Effluent Description | Discharge Point Latitude (North) | Discharge Point Longitude (West) | Receiving Water |
|--|--|---|-------------------------------------|---------------------|
| Treated quarry dewatering water, Primary Crusher wash water, Crusher Slope Drainage Area stormwater, | 37.31713° | -122.11165 ° | | |
| 001 | Cement Plant Reclaim Water System wastewater, Rock Plant aggregate wash water, Truck Wash water, subsurface flow from the East Materials Storage Area (EMSA) (intercepted by the EMSA French drain, EMSA catchment and drainage swales, and any additional related infrastructure), non- | One or more locations anywhere between approximately 37.32507°N, -122.08286°W and 37.31744°N, -122.11557°W | | Permanente Creek |

| Discharge Point | Effluent Description | Discharge Point Latitude (North) | Discharge Point Longitude (West) | Receiving Water |
|--------------------|---|-------------------------------------|-------------------------------------|---------------------|
| | stormwater, and stormwater, all discharged from Pond 4A the final treatment system | | | |
| 002 | Settled stormwater, including stormwater from Crusher Slope Drainage Area east of Pond 13B, discharged from Pond 13B | 37.31674° | -122.10167° | Permanente Creek |
| 003 | Stormwater from roads and hillsides, pumped from Dinky Shed Basin and direct rainfall and the directly adjacent hillside and upwelled groundwater, discharged from Pond 9 | 37.31339° | -122.09058° | Permanente Creek |
| 004 | Settled stormwater from rain falling directly on the Rock Plant, discharged from Pond 17 | 37.31431° | -122.08893° | Permanente Creek |
| 005 | Settled stormwater from the former Aluminum Plant, entry road, and nearby hillside, discharged from Pond 20 | 37.31899° | -122.087159° | Permanente Creek |
| 006 | Settled stormwater from the East Materials Storage Area (EMSA), discharged from Pond 30 | 37.32241° | -122.08551° | Permanente Creek |

4. Revise Permit provision IV.B (including Table 5 title) as follows:

B. Discharge Point Nos. 002, through 004, and 005

The Discharger shall comply with the following effluent limitations at Discharge Point Nos. 002, through 004, and 005, with compliance measured at Monitoring Locations EFF-002, through EFF-004, and EFF-005 as described in the MRP.

Table 5. Effluent Limitations – Discharge Point Nos. 002, through 004, and 005:

5. Revise Permit Provision VI.C.6.c as follows:

c. Additional Stormwater Provisions

i. Upon an initial detection of a pollutant at Discharge Point Nos. 002 or 004 through 006 in excess of the action levels in Table 7, below, the Discharger shall review the selection, design, installation, and implementation of its BMPs to identify necessary modifications....

6. Add new Permit Provision VI.C.7 as follows:

7. Flow Study Plan and Monitoring

The Discharger shall ensure minimum flows in Permanente Creek adjacent to the Facility as necessary to protect existing aquatic habitat beneficial uses until such reaches are disrupted for habitat restoration in accordance with a restoration plan the Regional Water Board authorizes.

- a. By December 1, 2017, the Discharger shall submit a Flow Study Plan to determine the minimum flow necessary to protect existing Permanente Creek aquatic habitat beneficial uses year-round and management measures to sustain such flows.
- b. By March 1, 2018, the Discharger shall submit a Flow Study Report reflecting any and all Regional Water Board staff feedback on the Flow Study Plan. The report shall propose actions necessary to ensure minimum flows necessary to protect existing aquatic habitat beneficial uses. At times, these actions may include pumping some, but not necessarily all, effluent from the final treatment system to upstream reaches. The Flow Study Report shall include monitoring actions to demonstrate flows sufficient to protect existing aquatic habitat beneficial uses.
- c. By May 1, 2018, the Discharger shall implement the actions set forth in the Flow Study Report as necessary to protect existing aquatic habitat beneficial uses. The Discharger shall also report in the cover letter to its monthly self-monitoring reports its findings from the monitoring actions set forth in the Flow Study Report.
- d. If the Flow Study Report proposes discharges at any Permanente Creek location other than the concrete-culverted portion of Permanente Creek near Pond 20, the Discharger shall ensure that such discharges do not cause sedimentation or erosion within Permanente Creek sufficient to cause or contribute to adverse impacts on Permanente Creek beneficial uses.
- 7. Revise Permit Monitoring and Reporting Program (Table E-1) as follows:

Table E-1. Monitoring Locations

| Sampling Monitoring Location Type Location Name | | Monitoring Location Description | |
|---|---------|---|--|
| Effluent | EFF-001 | Before the final treatment system is constructed and operating in accordance with the final process flow diagram shown in Attachment C, Schematic C-3: A point in the outfall from Pond 4A (Discharge Point No. 001), following treatment and prior to the receiving water, at which all waste tributary to the outfall is present. Latitude 37°,19',1.68" N Longitude 122°,6',41.94" W | |

| Sampling Location Type | Monitoring Location Name | Monitoring Location Description |
|---------------------------|-----------------------------|--|
| | | After the final treatment system is constructed and operating in accordance with the final process flow diagram shown in Attachment C, Schematic C-3: A point in the outfall from the final treatment system (Discharge Point No. 001), following treatment and prior to the receiving water, at which all waste tributary to the outfall is present. Approximate Latitude 37°,19',3.95" N Approximate Longitude -122°,5',17.84" W |
| : | : | : |
| Effluent | EFF-006 | A point in the outfall from Pond 30 (Discharge Point No. 006), prior to the receiving water, where all runoff from the East Materials Storage Area (EMSA) tributary to the outfall is present. Latitude 37°,19',23.3" N Longitude 122°,5',7.9"W |
| Receiving Water | RSW-001 | Before the final treatment system is constructed and operating in accordance with the final process flow diagram shown in Attachment C, Schematic C-3: A point in Permanente Creek within 50 feet upstream of instream Pond 13. After the final treatment system is constructed and operating in accordance with the final process flow diagram shown in Attachment C, Schematic C-3: A point 50 feet downstream of Discharge Point No. 001. |
| Receiving Water | RSW-001A | A point at the confluence of Wild Violet Creek and Permanente Creek upstream of Outfall 001. Discharge Point No. 002. Latitude 37°,19',13" N Longitude -122°,7',55" W |
| : | : | : |

8. Revise Permit Monitoring and Reporting Program (Table E-3) as follows:

Table E-3. Effluent Monitoring—Monitoring Locations EFF-002 through EFF-005

| Parameter [1] | Units | Sample Type [1][2] | Minimum Sampling Frequency |
|------------------------------|----------------|--------------------|-------------------------------|
| Flow [2][3] | MG | Continuous | 1/Month |
| Total Suspended Solids (TSS) | mg/L | Grab | 1/Quarter |
| Oil and Grease [3][4] | mg/L | Grab | 1/Quarter |
| pH | standard units | Grab | 1/Quarter |
| Settleable Matter | mL/L-hr | Grab | 1/Quarter |
| Turbidity | NTU | Grab | 1/Quarter |
| Conductivity | μmhos/cm | Grab | 1/Quarter |
| Chromium (VI) | μg/L | Grab | 1/Quarter |
| Mercury | μg/L | Grab | 1/Quarter |
| Nickel | μg/L | Grab | 1/Quarter |
| Selenium | μg/L | Grab | 1/Quarter |

| Parameter ^[1] | Units | Sample Type [13][2] | Minimum Sampling Frequency |
|------------------------------|-------|---------------------|-------------------------------|
| Thallium | μg/L | Grab | 1/Quarter |
| Standard Observations [4][5] | | | Each Occurrence |

Footnotes

- Daily average flow (gpd)
- Monthly average flow (MGD)
- Total monthly flow volume (MG)

This Order shall take effect on August 1, 2017 or the first day of the month after the Court approves the corresponding amendments to its consent decree, whichever is later.

I, Bruce H. Wolfe, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on DATE.

BRUCE H. WOLFE Executive Officer

Attachment 1 – Fact Sheet

Attachment 2 – Facility Map

Attachment 3 – Revised Final Process Flow Diagram

^[1] TSS, oil and grease, settleable matter, and turbidity monitoring are not required at Monitoring Location EFF-003.

^[13] Grab samples shall be collected during daylight hours.

Flow shall be monitored continuously at all monitoring locations. The following information shall be reported in monthly self-monitoring reports for all monitoring locations:

^{[3][4]} Oil and grease sampling and analysis shall be conducted in accordance with U.S. EPA Method 1664.

^{[4][5]} Standard observations are listed in Attachment G section III.C.1, Receiving Water Observations.

ATTACHMENT 1 – FACT SHEET

This Fact Sheet describes the legal requirements and technical rationale that serve as the basis for this Order's requirements.

Purpose

This Order amends Order No. R2-2014-0010 (NPDES Permit No. CA0030210, Permit) to accurately reflect the final treatment system design and final process flow configuration, including flows previously sent to Pond 9 and discharged at Discharge Point No. 003. Specifically, this Order replaces the facility map (Permit Attachment B, page B-2, "Facility Map") and process flow diagram (Permit Attachment C, page C-3, "Final Line Drawing of Flows; Final Treatment Flow Configuration") with updated versions and revises related text accordingly throughout the Permit.

Background

Lehigh Southwest Cement Company (Discharger) operates the Permanente Plant (Facility), a limestone quarry and cement production facility that also produces construction aggregate. The Facility is located at 24001 Stevens Creek Blvd., Cupertino. The Facility discharges wastewater and stormwater runoff associated with industrial activities to Permanente Creek, a water of the United States and a tributary to San Francisco Bay within the Santa Clara Basin watershed. Currently, these discharges are regulated pursuant to the Permit.

The Permit requires the Discharger to construct a final treatment system and comply with all Permit requirements. The Permit specifies a location for the final treatment system and Discharge Point No. 001 and a particular process flow configuration. However, the final treatment system design necessitates a different treatment system location, moving Discharge Point No. 001, and modifications to the final process flow configuration to ensure adequate area for treatment units, adaptability to changing Facility conditions, and efficient flow management. Moreover, when the Regional Water Board adopted the Permit, the Discharger was sending process-related flows to Pond 9 for treatment and discharge to Permanente Creek at Discharge Point No. 003; the Discharger has discontinued this practice in response to the discovery of California Red-Legged Frogs in Pond 9.

Authority to Amend Permit

The Regional Water Board may amend the Permit with good cause pursuant to 40 C.F.R. section 122.62(a)(2). The reopener provisions in Permit provision VI.C.1 allow the Regional Water Board to amend the Permit as necessary in response to updated water quality objectives, regulations, or other new and relevant information that becomes available after Permit issuance, and other circumstances as allowed by law. The Discharger may request Permit modification based on any of these circumstances. In a letter to the Regional Water Board dated December 30, 2016, the Discharger applied for a Permit amendment to account for changes to the final treatment system and process flow configuration. The discovery of California Red-Legged Frogs in and near Pond 9 is also a basis for this amendment.

Rationale for Specific Revisions

1. Replace Permit Attachment B, page B-2, with Attachment 2 of this Order ("Final Facility Map").

Permit provision III.A prohibits discharges other than those shown in the facility map in Attachment B, page B-2. The map shows Discharge Point Nos. 001 through 006 and the Facility's water and wastewater conveyance system. Attachment 2 of this Order updates the discharge points and process flow diagram to match the Discharger's design. The new location for Discharge Point No. 001 will allow discharge by gravity at a location nearer to the final treatment system, which will require less pumping and allow for a simpler process flow configuration.

2. Replace Permit Attachment C, page C-3, with Attachment 3 of this Order ("Revised Final Line Drawing of Flows").

The Permit prohibits discharges other than those shown in the final process flow diagram in Permit Attachment C, page C-3 ("Final Line Drawing of Flows; Final Treatment Flow Configuration"). This Order amends the final process flow diagram to be consistent with the updated final treatment system design and Facility flows. The updated final treatment system design eliminates discharges from Discharge Point No. 003; directs several flows that were previously discharged at Discharge Point Nos. 002 through 006 to the final treatment system and, subsequently, Discharge Point No. 001; and generally improves stormwater management and treatment of contaminated runoff before discharge to Permanente Creek. Major changes to the process flow diagram are follows:

- a. The final treatment system includes two treatment trains consisting of an ultra-filtration/reverse osmosis system, a bioreactor, and a settling tank for bioreactor backwash. The second train provides flexibility in case of needed maintenance and capacity to treat additional quarry or wet weather flows. Optional mineral injection provides additional treatment of final treatment system flows as needed prior to discharge. The feed/sediment tank, previously shown before the final treatment system, is deleted.
- b. The final treatment system discharges directly through Discharge Point No. 001 instead of through Pond 4A.
- c. A potential discharge point from the final treatment system to the city sewer is added, as are solid waste (sludge) flows from the backwash settling tank to the thickener tank or to non-hazardous waste storage totes. Discharge to the city sewer would require city approval.
- d. Flows into what has been referred to as the Cement Plant Reclaim Water System (water management infrastructure in and around the Cement Plant Area) are now also managed through Pond 1, which was installed after the Permit was adopted to provide additional storage capacity. These flows include cooling water from the cement plant, office building, and finish mill cooling tower water systems; Rock Plant sump water; and truck wash water.
- e. The Dinky Shed Basin water has been re-routed to flow to Pond 1 instead of Pond 9 and

Discharge Point No. 003.

- f. The East Materials Storage Area french drain, installed after the Permit was adopted, intercepts subsurface flow from the Eastern Materials Storage Area and directs it to a water collection tank, from which it can then be directed either for consumptive re-use in the cement plant or to the final treatment system by way of Pond 1 and Pond 11 (see item g, below). This flow previously reached Pond 30 and was discharged from Discharge Point No. 006. The change allows this flow to go to the final treatment system for subsequent discharge at Discharge Point No. 001.
- g. Flows from Pond 1 are sent to Pond 11; flows from Pond 11 are sent for in-plant reuse or to the quarry, then to the final treatment system by way of a frac tank and Pond 1250.
- h. Primary Crusher System flow to the final treatment system is deleted. The Primary Crusher System previously managed water using open concrete basins, from which comingled process wastewater could overflow during storm events; the previous final process flow diagram specified that such wastewater was to be directed to the final treatment system. In 2014, the Discharger replaced the Primary Crusher System with a new crusher that no longer generates process wastewater because it more efficiently uses and contains water used within the system.
- i. Bioreactor effluent recycle water flows to Pond 11; flow from Pond 1250 can also be sent back to Pond 11.
- j. Groundwater flow to Pond 13B for discharge through Discharge Point No. 002 is deleted.
- k. The intermittent truck wash water flow to Pond 20 and Discharge Point No. 005 is deleted.
- 1. The process flow diagram includes the following annotation: "Configurations that divert additional process and stormwater to the final treatment system comply with the 'Revised Final Line Drawing of Flows,' provided that they comply with the other requirements of this Order." This is included to allow the Discharger flexibility to treat additional flows (i.e., remove additional pollutants) as needed without seeking another Permit amendment.

3. Revise Permit Table 2.

The Order amends Permit Table 2 to update the effluent descriptions and discharge point locations consistent with Permit Attachment C, page C-3, as amended. The reasons for these changes are as follows:

a. Discharge Point No. 001. This Order amends the effluent description to match the final treatment system design and facility flows as shown in the amended final process flow diagram; it also amends the discharge point location. The Discharger will no longer send process-related flows to Pond 4A; instead, these flows will be sent to the final treatment system and then to Permanente Creek. The Discharger no longer sends Primary Crusher wash water to Pond 4A because the Discharger has replaced the Primary Crusher with a new crusher that does not generate process wastewater, as explained in item 2.h above. The amended location of Discharge Point No. 001 is one or more locations in Permanente

Creek adjacent to the Facility, providing flexibility to enable the Discharger to ensure flows necessary to support existing Permanente Creek aquatic habitat beneficial uses, while minimizing the need for the Discharger to pump effluent upstream. Treated effluent may be discharged downstream (northwest) of the location identified in the Permit as originally adopted, in a concrete-culverted portion of Permanente Creek near Pond 20; the outfall at this location was a previously permitted discharge point under Regional Water Board Order No. R2-2008-0011 (Sand and Gravel General NPDES Permit) and is the same as the Pond 1 emergency overflow discharge point. This location will allow gravity discharge of final treatment system effluent.

- b. Discharge Point No. 002. This Order amends the effluent description to delete Crusher Slope Drainage Area stormwater. The Discharger no longer sends this stormwater to Pond 13B for discharge through Discharge Point No. 002; instead, it sends this flow to the final treatment system prior to discharge at Discharge Point No. 001.
- c. Discharge Point No. 003. This Order amends the effluent description to remove discharges that have been discontinued. Because the Discharger discovered California Red-Legged Frogs in Pond 9, it cannot operate Pond 9's filtration system, with which it had planned to treat process wastewater and industrial stormwater before discharge at Discharge Point No. 003. Therefore, the Discharger now sends these flows, including water from the Dinky Shed Basin, to the final treatment system by way of Ponds 1 and 11 for treatment and discharge through Discharge Point No. 001. Only upwelled groundwater and creek water, rain that falls directly into the pond, and runoff from the directly adjacent hillside (which does not contact raw, interim, or waste materials, or finished cement products) will flow to Pond 9 and Discharge Point No. 003; therefore, treatment at Pond 9 prior to Discharge Point No. 003 is no longer required.
- d. Discharge Point No. 004. This Order amends the effluent description to include only stormwater that flows directly from the Rock Plant to Pond 17 for discharge through Discharge Point No. 004. The Discharger now sends stormwater from the hillsides adjacent to the Rock Plant (which does not contact raw, interim, or waste materials, or finished cement products) around the Rock Plant and discharges it directly to Permanente Creek.
- e. Discharge Point No. 005. This Order amends the effluent description to clarify that the former Aluminum Plant is not operational.
- f. Discharge Point No. 006: This Order amends the effluent description to include stormwater from operational areas around the eastern portion of the Eastern Materials Storage Area. This change clarifies that the catchment for Pond 30 includes the area of ongoing operations to comply with the Permit and other State and county requirements.
- 4. Revise Permit provision IV.B (including Table 5 title).

This Order amends Permit provision IV.B to remove numeric effluent limitations on total suspended solids (TSS), oil and grease, pH, settleable matter, and turbidity at Discharge Point No. 003. The Discharger no longer directs process-related flows to Pond 9, no longer uses Pond 9 to control sediment from mining activities, and no

longer uses Pond 9 to treat Facility flows. Because Pond 9 no longer discharges process wastewaters or stormwater associated with industrial activity, the technology-based effluent limits are no longer needed at Discharge Point No. 003.

5. Revise Permit Provision VI.C.6.c.

This Order amends Permit Provision VI.C.6.c to no longer apply Stormwater Action Levels to Discharge Point No. 003. The Stormwater Action Levels are based on the benchmark concentrations in the State Water Resources Control Board's (State Water Board's) Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities, NPDES Permit No. CAS000001 (State Water Board Order No. 07-03-DWQ) and U.S. EPA's NPDES Stormwater Multi-Sector General Permit for Industrial Activities (2008). Because the Discharger no longer discharges industrial stormwater at Discharge Point No. 003, the Stormwater Action Levels no longer apply.

6. Add Permit Provision IV.C.7.

This Order adds Permit Provision IV.C.7 to require the Discharger to conduct a study to determine the minimum flows necessary to protect existing Permanente Creek aquatic habitat beneficial uses year-round and to provide such flows until affected reaches are altered as part of a Regional Water Board-authorized habitat restoration project. This provision is necessary to ensure that altering the volume, location, and timing of effluent discharges does not harm existing aquatic habitat beneficial uses between Pond 4A and downstream discharge locations. Aquatic habitat beneficial uses within this reach include cold freshwater habitat (for trout) and preservation of rare, threatened, or endangered species (e.g., California Red-Legged Frogs).

7. Revise Permit Monitoring and Reporting Program (Table E-1).

The Permit Monitoring and Reporting Program (Table E-1) specifies effluent and receiving water monitoring locations. This Order updates the descriptions of these locations to match Table 2, as amended, and to account for the change in the location of Discharge Point No. 001.

8. Revise Permit Monitoring and Reporting Program (Table E-3).

This Order amends the Permit Monitoring and Reporting Program (Table E-3) to no longer require the Discharger to monitor specified effluent parameters at Monitoring Location EFF-003. Because Discharge Point No. 003 will no longer discharge any process-related flows, and this Order removes the TSS, oil and grease, settleable matter, pH, and turbidity effluent limits at this discharge point, monitoring for those parameters is no longer required at that location. The amended Permit retains monitoring for flow, pH, conductivity, chromium (VI), mercury, nickel, selenium, thallium, and standard observations to support future reasonable potential analyses.

Antidegradation

Antidegradation policies require that the existing quality of waters be maintained unless degradation is justified based on specific findings. State Water Board Resolution No. 68-16 sets forth California's antidegradation policy. Consistent with 40 C.F.R. section 131.12, Resolution No. 68-16 incorporates the federal antidegradation policy. The Basin Plan implements and

incorporates by reference both the State and federal antidegradation policies. Permitted discharges must be consistent with these antidegradation policies.

This Order complies with the antidegradation policies because it will not result in any additional pollutant discharges and will not reduce receiving water quality. In fact, this Order will result in less pollutant discharge and will increase receiving water quality relative to that authorized by the Permit; it requires flows previously discharged at Discharge Point Nos. 002 through 006 (which receive less treatment) to be discharged at Discharge Point No. 001 after treatment by the final treatment system. This Order maintains existing effluent limitations at Discharge Points No. 001, 002, and 004 through 006. It removes effluent limitations at Discharge Point No. 003, but only because Pond 9 will no longer discharge process wastewaters or stormwater associated with industrial activity there. Instead, waters that would have flowed through Pond 9 will be diverted to the final treatment system, thus removing some pollutants (e.g., selenium) that would otherwise have been discharged.

California Environmental Quality Act

Under Water Code section 13389, this action to amend an NPDES permit is exempt from the provisions of the California Environmental Quality Act, Public Resources Code division 13, chapter 3 (commencing with § 21100). Compliance with California Environmental Quality Act provisions is only required for NPDES permit actions pertaining to new sources as defined by the federal Clean Water Act (i.e., sources constructed after New Source Performance Standards were published). The Facility has been in operation since before February 23, 1977, when the first relevant New Source Performance Standards were published. U.S. EPA guidance states that the source of an industrial discharge is the facility generating the discharge, not the system treating it; thus, the changes to the final treatment system and the updated process flow configuration do not trigger new source requirements.

Notification of Interested Parties

The Regional Water Board developed a tentative Permit amendment and encouraged public participation in this amendment process:

- A. **Notification of Interested Parties.** The Regional Water Board notified the Discharger and other interested agencies and persons of its intent to amend the Permit and provided an opportunity to submit written comments and recommendations. Notification was provided through the *Cupertino Courier*. The public had access to the agenda and any changes in dates and locations through the Regional Water Board's website at http://www.waterboards.ca.gov/sanfranciscobay.
- B. Written Comments. Interested persons were invited to submit written comments concerning the tentative amendment as explained through the notification process. Comments were due either in person or by mail at the Regional Water Board office at 1515 Clay Street, Suite 1400, Oakland, California 94612, to the attention of Lena Germinario.
 - For full staff response and Regional Water Board consideration, the written comments were due at the Regional Water Board office by 5:00 p.m. on June 12, 2017.
- C. Public Hearing. The Regional Water Board held a public hearing on the tentative

amendment during its regular meeting at the following date and time and at the following location:

Date:

July 12, 2017

Time:

9:00 a.m.

Location:

Elihu Harris State Office Building 1515 Clay Street, 1st Floor Auditorium

Oakland, CA 94612

Contact:

Lena Germinario, (510) 622-2359, LGerminario@waterboards.ca.gov

Interested persons were invited to attend. At the public hearing, the Regional Water Board heard testimony pertinent to the amendment. For accuracy of the record, important testimony was requested to be in writing.

Dates and venues change. The Regional Water Board web address is http://www.waterboards.ca.gov/sanfranciscobay, where one could access the current agenda for changes in dates and locations.

D. **Reconsideration of Amendment.** Any aggrieved person may petition the State Water Board to review the Regional Water Board's decision regarding the amendment. The State Water Board must receive the petition at the following address within 30 calendar days of the Regional Water Board action:

State Water Resources Control Board Office of Chief Counsel P.O. Box 100, 1001 I Street Sacramento, CA 95812-0100

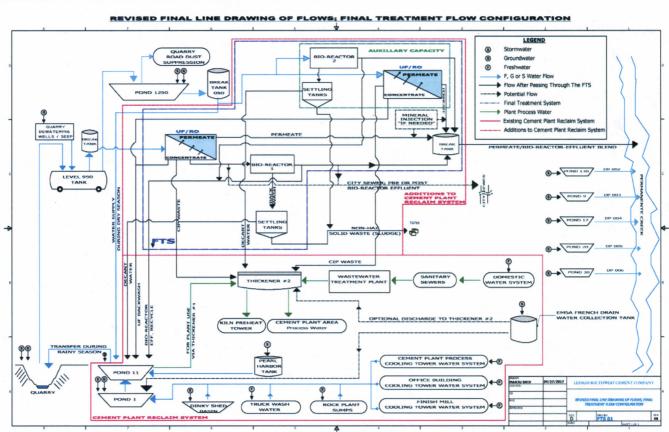
For instructions on how to file a petition for review, see http://www.waterboards.ca.gov/public_notices/petitions/water_quality/wqpetition_instr.shtml.

- E. **Information and Copying.** Relevant supporting documents and comments received are on file and may be inspected at the address above at any time between 9:00 a.m. and 5:00 p.m., Monday through Friday. Copying of documents may be arranged by calling (510) 622-2300.
- F. **Register of Interested Persons.** Any person interested in being placed on the mailing list for information regarding the amendment should contact the Regional Water Board, reference the Facility, and provide a name, address, and phone number.
- G. Additional Information. Requests for additional information or questions regarding this Order should be directed to Lena Germinario, (510) 622-2359, LGerminario@waterboards.ca.gov.

ATTACHMENT 2 - FACILITY MAP



ATTACHMENT 3 – REVISED FINAL PROCESS FLOW DIAGRAM



CONFIGURATIONS THAT DIVERT ADDITIONAL PROCESS AND STORMMATER TO THE FINAL TREATMENT SYSTEM COMPLY WITH THE "REVISED FINAL LINE DRAWING OF FLOWS," PROVIDED THAT THEY COMPLY WITH THE OTHER REQUIREMENTS OF THIS ORDER.

Appendix B Revised Tentative CDO Amendment

California Regional Water Quality Control Board San Francisco Bay Region

Revised Tentative Order No. R2-2017-XXXX

Amendment of Cease and Desist Order No. R2-2014-0011
for Lehigh Southwest Cement Company and
Hanson Permanente Cement, Inc.,
Permanente Plant
Cupertino, Santa Clara County

WHEREAS the California Regional Water Quality Control Board, San Francisco Bay Region (Regional Water Board), finds the following:

- 1. Lehigh Southwest Cement Company (Discharger) owns and operates the Permanente Plant (Facility), located at 24001 Stevens Creek Blvd., Cupertino. The Discharger mines limestone and rock, and produces cement and construction aggregate, at the Facility.
- 2. On March 12, 2014, the Regional Water Board adopted Order. No. R2-2014-0010 (NPDES Permit No. CA0030210) (Permit), which serves as Waste Discharge Requirements and regulates point source discharges from the Facility.
- 3. On March 12, 2014, the Regional Water Board also adopted Cease and Desist Order No. R2-2014-0011 (CDO) because the Facility's discharges threatened to violate Permit requirements. The CDO requires the Discharger to construct a final treatment system to treat all Facility process wastewater and to configure site flows to comply with the Permit by October 1, 2017; the CDO also imposes interim requirements.
- 4. By October 1, 2017, the CDO requires the Discharger to operate in compliance with the Permit Facility map (reproduced as CDO Attachment A, page A-1, "Water System and Piping") and process flow diagram (reproduced as CDO Attachment B, page B-3, "Final Line Drawing of Flows; Final Treatment Flow Configuration").
- 5. Order No. R2-2017-00XX (Permit Amendment) amended the Permit to revise the Facility map and process flow diagram. The amendment accounts for changes made to the final treatment system and final process flow configuration to ensure adequate wastewater treatment, sufficient area for treatment units, adaptability to changing Facility conditions, and efficient flow management. These changes include the following:
 - a. Additional ultrafiltration/reverse osmosis treatment as part of the final treatment system.
 - **b.** Relocation of the final treatment system and Discharge Point No. 001.
 - c. Final process flow configuration that includes newly-constructed Pond 1 and removes Pond 4A and sends certain flows previously discharged at Discharge Point Nos. 002 through 006 to the final treatment system and Discharge Point No. 001 for treatment and discharge.

- 6. The Permit Amendment also accounted for changes made to Facility flows to accommodate the discovery of California Red-Legged Frogs in Pond 9. The Permit Amendment prohibits the Discharger from sending process-related flows and stormwater associated with industrial activity to Pond 9 or discharging them to Permanente Creek at Discharge Point No. 003. The Permit Amendment no longer requires treatment at Pond 9 nor imposes certain effluent limits at Discharge Point No. 003.
- 7. As a result of the Permit Amendment, the Permit Facility map and process flow diagram no longer match those in CDO Attachments A and B.
- **8.** This Order amends CDO Attachments A and B to match the process flow diagram in the Permit Amendment.
- 9. This Order also amends the CDO to recognize that the Discharger may simultaneously discharge from the Pond 4A outfall and Discharge Point No. 001 until the final CDO compliance date of October 1, 2017. Such discharges may be necessary during final treatment system start-up to ensure proper operations by October 1, 2017.
- 10. The Regional Water Board notified the Discharger and interested agencies and persons of its intent to amend the CDO and provided an opportunity to submit written comments and recommendations between May 12, and June 12, 2017.
- 11. The Regional Water Board, in a public meeting on July 12, 2017, heard and considered all comments pertaining to the amendment.

IT IS HEREBY ORDERED, pursuant to the provisions of California Water Code Division 7 and regulations adopted thereunder, and the provisions of the federal Clean Water Act and regulations and guidelines adopted thereunder, that the Discharger shall comply with the CDO as amended as follows:

- 1. Replace CDO Attachment A, page A-2, with Attachment 1 of this Order ("Facility Map").
- 2. Replace CDO Attachment B, page B-3, with Attachment 2 of this Order ("Revised Final Line Drawing of Flows; Final Treatment Flow Configuration").
- **3.** Add CDO provision 1.d, as follows:
 - d. During final treatment system start-up, and prior to October 1, 2017, the Discharger may simultaneously discharge from the Pond 4A outfall and Discharge Point No. 001 as long as the Discharger complies with all other requirements of this Order.

This Order shall take effect on the effective date of Order No. R2-2017-00XX.

I, Bruce H. Wolfe, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on DATE.

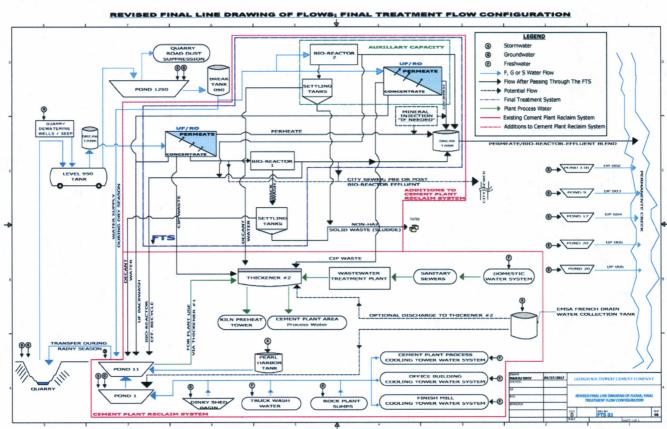
BRUCE H. WOLFE Executive Officer

Attachment 1 – Facility Map Attachment 2 – Revised Final Process Flow Diagram

ATTACHMENT 1 - FACILITY MAP



ATTACHMENT 2 - REVISED FINAL PROCESS FLOW DIAGRAM



CONFIGURATIONS THAT DIVERT ADDITIONAL PROCESS AND STORMWATER TO THE FINAL TREATMENT SYSTEM COMPLY WITH THE 'REVISED FINAL LINE DRAWING OF FLOWS.' PROVIDED THAT THEY COMPLY WITH THE OTHER REQUIREMENTS OF THIS ORDER

Appendix C Comment Letters



Sierra Club Loma Prieta Chapter Serving San Mateo, Santa Clara and San Benito Counties Protecting Our Planet Since 1933

3921 East Bayshore Road, Suite 204 Palo Alto, CA 94303

June 6, 2017

VIA EMAIL: Lena.Germinario@Waterboards.ca.gov

Lena Germinario California Regional Water Quality Control Board San Francisco Bay Region 1515 Clay Street, Suite 1400 Oakland, CA 94612

RE: Sierra Club comments opposing Lehigh Southwest Cement's request to move the treated water discharge location on Permanente Creek, NPDES Permit Order No. R2-2014-0010.

Dear Ms. Germinario,

On behalf of the Loma Prieta Chapter of Sierra Club, I am writing to object to Lehigh Southwest Cement Company's ("Lehigh's") request to change its final treatment system ("FTS") discharge into Permanente Creek. Lehigh seeks to change its current NPDES permit discharge point on Permanente Creek a mile downstream and 500 feet lower in elevation. A significant proportion of the water to be treated by, and discharged from, the FTS comes from water formerly in Permanente Creek at elevations 1,000 feet and higher. This is due to the fact that Lehigh's pit dewatering operation lowers the water table, drawing water through subsurface soils and rock into the pit. Lehigh's request should be denied because that water should be returned, after treatment, to the approximate location and elevation of its removal as Lehigh's current NPDES permit requires. Further, because the water removed from, and which should be returned to Permanente Creek often represents 100% of total flow in the lower reaches during most of the year, this flow is essential to maintain current stream conditions and habitat.

Sierra Club does not object to Lehigh's request to change the description of discharges into Pond 9 to reduce the perceived risk to any California Red-Legged Frogs.

Background.

Lehigh seeks to change the FTS discharge point in its NPDES permit from Pond 4A, at an elevation of \sim 1,080 feet, to a new location approximately one mile downstream at an elevation of \sim 500 feet. Lehigh letter to Regional Water Board, December 30, 2016. The requested change in location appears to be inspired by an interest in lowering pumping costs.

Id., p. 2. There are no water quality or quantity advantages associated with the proposed change, only disadvantages.

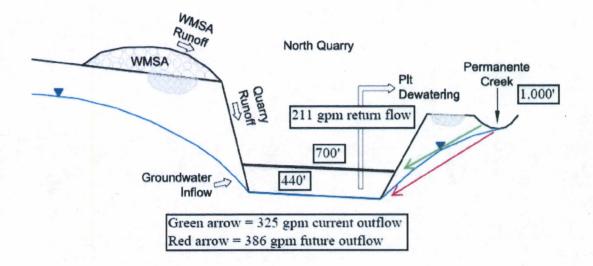
Analysis.

Lehigh's request should be rejected; Lehigh's current Pond 4A discharge point should be retained. That point, shown in relationship to the Lehigh quarry, is shown below.

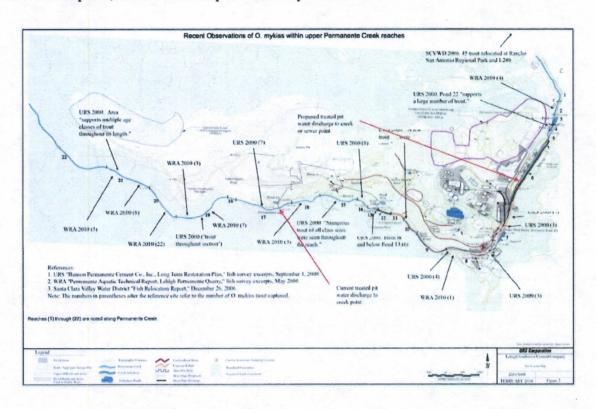


According to Lehigh's consultant Golder Associates, outflow from Permanente Creek above 1,000' in elevation, induced by the steep groundwater gradient created by pit dewatering at ~700', averages approximately 325 gallons per minute ("gpm"). Golder, May 2010, pp. 24-29. Golder estimates this average outflow from Permanente Creek will increase to approximately 386 gpm as continued mining lowers the pit to 440' in elevation. A substantial proportion of this water is returned to the creek at Pond 4A through the pit dewatering and treatment system. In fact, this return flow often constitutes the entirety of flow in the creek. Accordingly, Golder reports that stream flow in Permanente Creek during the dry season (based on March to July data) "is mostly affected by pumping from the North Quarry into Permanente Creek." Golder, p. 26.

A graphic explaining how creek drawdown from pit dewatering is at least partially counter-balanced by the re-introduction of treated pit water, is shown below:



To what extent would Permanente Creek be deprived of FTS treated water return flows if Lehigh's request to change the point of discharge from Pond 4A to the cement plant location? The map below indicates at least a mile of creek would be adversely affected. Not only would resident fish be harmed by this significant reduction in flow between Pond 4A and the cement plant, but all related species and riparian habitats.



Moreover, if Lehigh is allowed the option of discharging FTS treated water directly to the city sewer (Tentative Order, Attachment 1, p. 1-2), Permanente Creek would be denied these return flows through the remainder of the Lehigh property, all of Rancho San Antonio

County Park, and beyond. Such a significant diversion of water from Permanente creek would reduce year-round flows, cause remaining creek water temperatures to rise, and would likely reduce Permanente Creek's contribution to Santa Clara County's underground drinking water supply through the unconfined areas of the Santa Clara Subbasin aquifer.

Conclusion.

Lehigh's request to change the discharge location of FTS treated water to Permanente Creek should be denied. The change in location would significantly diminish the return flow of water, removed by the quarry operation as a result of pit dewatering, over more than a mile of stream. The loss of this water, at some period of the year constituting the entire flow of the stream, would imperil the resident trout population and significantly degrade this already overstressed water course.

Respectfully submitted,

Kit Gordon

Sierra Club Loma Prieta Chapter

Water Committee

Lit Hodon

Reed Zars, <reed@zarslaw.com>
George Hays, <georgehays@mindspring.com>
Greg Gholson, <Gholson.Greg@epamail.epa.gov>
Matt Baldzikowski, <mbaldzikowski@openspace.org>
Kirk Lenington <klenington@openspace.org>
Dyan Whyte, <Dyan.Whyte@waterboards.ca.gov>
Julie Macedo, <Julie.Macedo@waterboards.ca.gov>
Deborah Gitin, <deborah.gitin@usdoj.gov>
Ellen Blake <Blake.ellen@Epa.gov>
Megan Medeiros <megan@greenfoothills.org>
Ralph Schardt <rschardt@scvas.org>
Katja Irvin <katja.irvin@sbcglobal.net>
Mike Ferreira <michaeljferreira@gmail.com>
James Eggers <james.eggers@sierraclub.org>



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IX

75 Hawthorne Street San Francisco, CA 94105-3901

June 12, 2017

Bruce Wolfe
Executive Officer
California Regional Water Quality Control Board
San Francisco Region
1515 Clay Street, Suite 1400
Oakland, CA 94612

Re: Public Notice for Amendment of Order No. R2-2014-0010, Lehigh Southwest Cement Company and Hanson Permanente Cement, Inc.

Dear Mr. Wolfe:

It recently came to our attention that the San Francisco Regional Water Quality Control Board is considering a modification to the National Pollutant Discharge Elimination System (NPDES) Permit Order Number R2-2014-0010, based on a request from the Lehigh Southwest Cement Company and Hanson Permanente Cement, Inc. The stated rationale for the permit modification request, among others, is that the "final treatment design necessitates a different treatment system location and discharge point" and "changes to the process flow configuration are also needed to protect California Red-Legged Frogs."

We are concerned that relocation of the outfall to a location downstream of the existing discharge point could cause adverse effects on the beneficial uses of Permanente Creek between the existing outfall location and the proposed new outfall location. The proposed relocation of Outfall 001 downstream of its existing location would affect approximately 1.7 river miles and likely will cause significant reduction in instream flows upon which aquatic habitat depends.

We note that other Regional Boards have provided for maintenance of minimum instream flow to protect aquatic habitat in the context of NPDES permitting decisions. For example, the NPDES permit for the Las Virgenes Municipal Water District, Tapia Reclamation Facility, (NPDES Permit No. CA0056014) provides that "the Discharger shall augment flow in the Malibu Creek, such that 2.5 cfs of maximum total flow is measured at the Los Angeles County gauging station F-130-R to sustain the steelhead trout habitat."

¹ See the 2017 Public Notice for Amendment of Order No. R2-2014-0010 at www.waterboards.ca.gov/sanfranciscobay/board_info/agendas/2017/July/Lehigh/Public_Notice.pdf.

We encourage the Board to work with the permittee to explore possibilities that would provide for a discharge of treated effluent at the existing Outfall 001 location to help preserve aquatic habitat in Permanente Creek in the area between the existing and proposed new outfalls. For example, it may be feasible to maintain some level of minimum discharge flow at the upstream outfall location while discharging most of the treated effluent at the proposed new outfall location.

We appreciate the opportunity to provide input on this permit modification. Please contact me at (415) 972-3464 or Becky Mitschele of my staff at (415) 972-3492 if you have any questions.

Sincerely,

David Smith, Manager

NPDES Permits Section (WTR 2-3)

CC (electronic): Lena Germinario, RWQCB

From: Granquist, Nicole <ngranquist@DowneyBrand.com>

Sent: Wednesday, June 7, 2017 10:21 PM

To: Germinario, Lena@Waterboards; Keith.Krugh@LehighHanson.com

Cc: Sam.Barket@LehighHanson.com; Erika.Guerra@LehighHanson.com; Johnson, Bill@Waterboards; Madigan, John@Waterboards; Whyte, Dyan@Waterboards;

Granquist, Nicole

Subject: RE: Tentative Orders Amending Order Nos. R2 2014-0010 (NPDES Permit CA0030210)

and R2-2014-0011 (Cease and Desist Order), Lehigh Southwest Cement Company and

Hanson Permanente Cement, Inc., Permanente Plant, Santa Clara County

Attachments: FTS01 Rev08.pdf

Lena,

Thank you for the opportunity to comment. Lehigh noticed that the "Pearl Harbor" tank was inadvertently omitted from the final flow configuration line drawing, and submits a revised figure here, with Pearl Harbor noted (as a source of storm water flows within the Cement Plant Reclaim System), simply for accuracy (no substantive change). Further, Lehigh now has more exact coordinates from which it plans to sample EFF-001 (Table E-1), page 4 of the permit amendment (N 1942091.8, E 6099830.2), please let us know if you would like further details for inclusion in the documents prior to the Regional Water Board hearing.

Thank you.

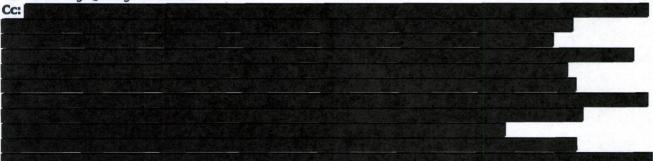
Nicole E. Granquist

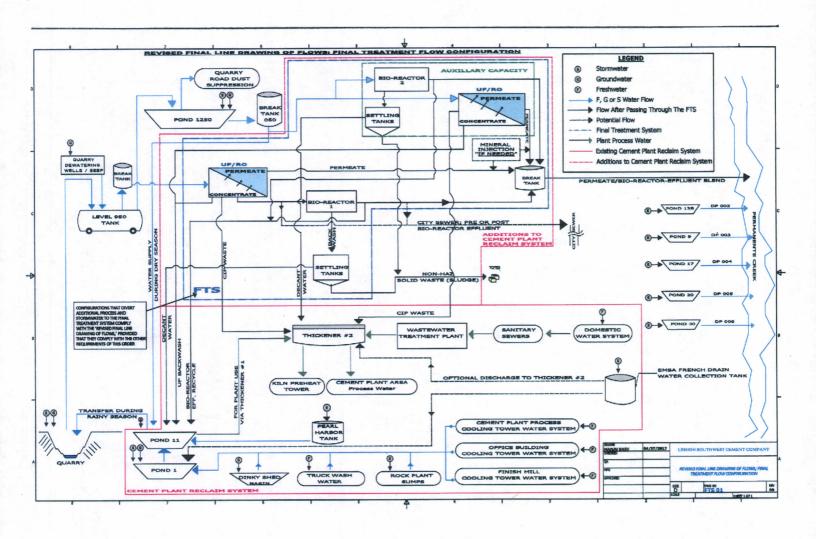
DOWNEYBRAND

Downey Brand LLP 621 Capitol Mall, 18th Floor Sacramento, CA 95814 916.444.1000 Main 916.520.5369 Direct 916.520.5769 Fax ngranquist@downeybrand.com www.downeybrand.com

From: Germinario, Lena@Waterboards [mailto:Lena.Germinario@Waterboards.ca.gov]

Sent: Friday, May 12, 2017 5:34 PM **To:** Keith.Krugh@LehighHanson.com





From:

Cc:

Sent: To: Thursday, June 8, 2017 2:05 PM

Germinario, Lena@Waterboards Gregg, Jack@Waterboards

Subject:

Re: Tentative Orders Amending Order Nos. R2 2014-0010 (NPDES Permit CA0030210...

Lena Germinario,

June 8, 2017

In regards Tentative Orders Amending Order Nos. R2 2014-0010 (NPDES Permit CA0030210) and R2-2014-0011 (Cease and Desist Order), Lehigh Southwest Cement Company and Hanson Pemanente Cement, Inc., Permanente Plant, Santa Clara County I would like to submit the following concerns in preliminary response.

- ~ Though the RWQCB focus in these Tentative Orders is to assess levels of chemical contaminants in water Lehigh Cement is outsourcing to Permanente Creek from quarry operations, I do not find temperature criteria which believe is integral to environmental impacts on stream and Bay biota. Please require all quarry outfalls to Permanente Creek monitored to ensure stream temperatures are viable for healthy survival of Red-Legged Frogs and resident trout.
- ~ Have recently noted green algae in stream flows in concrete reach of Permanente Creek just north of Portland Avenue, though cannot tell if it is a lethal variety, Should Santa Clara Valley Water District monitor creek conditions here or City of Los Altos be concerned on health of stream as it abuts Heritage Oaks Park?
- ~ Though you have transmitted Lehigh's Tentative Orders to Santa Clara Valley Water District staff it does not appear that they are contributing flow data from their Berry Avenue gage which should assess stream temperatures and flows in this reach? The daily record of volumes of stream flow is basic to evaluating what percentage of Permanente Creek's watershed runoff is percolating into Santa Clara Valley aquifers through creek's two and one half miles of unconfined zone. Historically it has been pulse flows from upper watershed that cleared percolation gravels to optimize rainwater reaching groundwater basins and RWQCB needs to ensure that this action is not being lost or diminished through present permitted quarry release regimen.
- ~ Then, to my most serious concern, which is degree to which RWQCB Tentative Orders may lead to loss of Permanente Creek's watershed resources, in perpetuity, due to provisions in California Water Law's Rights of Appropriation. The volumes and frequency of pumping of water from drainage ditches, ponds and pits to the treatment plant, with transmittal to holding tanks and truck, undocumented and unlimited, is unregulated in these orders, I find, to a critical degree. As the tentative permit's only regulatory limit seems the creek outfall of 167,000 gallons per hour, believe it is feasible for Lehigh to diminish beneficial uses inherent in watershed by accommodating unanticipated activities. Finally, as believe the deficiency in specific language gives too wide a latitude for permanent diversion or retention of prime watershed resources, request RWQCB California Water Law expert review aspects of Prescriptive and Appropriative Rights as they pertain to all elements addressed in Tentative Orders for Lehigh Southwest Cement Company and Hanson Permanente Cement.Inc.

Thank you for consideration of my initial concerns, and will try to address subsequent details on Monday.

Libby Lucas,

PS There is a time limit for legally assuring an appropriator of their rights to water use so please avoid delay.

From:

Sent: To: Monday, June 12, 2017 4:40 PM Germinario, Lena@Waterboards

Subject:

Tent. Ammending Order NPDES Permit/ Lehigh Water Treatment?SC Co Zoning

Hearing

Attachments:

Lehigh Water Treatment Facility - Zoning Administrator Hearing - May 4

Lena Germinario,

June 12, 2017

In regards RWQCB Tentative Orders Amending Order Nos. R2 2014-0010 (NPDES Permit CA0030210) and R2-2014-0011 (Cease and Desist Order), Lehigh Southwest Cement Company and Hanson Permanente Cement, Inc. Permanente Plant, Santa Clara County, I am attaching details of Santa Clara County Zoning Officer's recent May 4 review of Lehigh Water Treatment Facility that I request be incorporated in record for RWQCB Tentative Orders Amending Order Nos. R2 2014-0010 and 0011 in continuation of my 6/8 comment.

This Santa Clara County Department of Planning and Development Architecture and Site Approval, Design Review, and Grading Approval - 2250-17A-17DR-17G (Lehigh Water Treatment Facility) of a 159.42 acre site is deemed ancillary and accessory to the Cement Plant, and includes a 9,100 square foot building, on a pad which necessitates 2,976.6 cubic yards (CY) of cut and 2,220.9 CY of fill for building footprint and associated outdoor equipment. My concerns in this matter is that no soils analysis is attached to order and site appears unvegetated which might be indicator of historical use associated with contaminants. Steepness of graded slopes could be mitigated with vegetated terraces to integrate with environmental integrity of the watershed. Trees would also serve to buffer bulk of 9000 square foot structure and auxiliary buildings visible from valley.

On page 8 of this transmitted staff report please note Technical Details of Facility Operation to be assured that details are in compliance with RWQCB NPDES Permit relative to water circulation from ponds to plant.

"Currently, water is collected at the Cement Plant primarily in Pond 1 and Pond 11. Pond 1 water is pumped to the Permanente Quarry Main Pit. Extraction wells surrounding the Main Pit draw water out of the ground and the water is currently sent to the Interim Treatment System at Pond 4A to be treated before being discharged into Permanente Creek. The capacity of the Interim Treatment System is only 400 gallons per minute. The proposal includes redirecting the water from the extraction wells to the proposed Facility, which will have a capacity of 1,200 gallons per minute. The proposed Facility will replace existing interim Treatment System located near the Main Pit at Pond 4A. See Attachment E for a Flow Schematic."

Is this increase in pump power critical to facility operations in consideration of its probable lethal impacts to Red-Legged Frog populations that inhabit full extent of Upper Permanente Creek watershed? What water rights are intrinsic to these extraction wells pumping of groundwater adjacent to main quarry pit? To increase pump power in extracting groundwater from wells will extend de-watering of underflow of Permanente Creek?

Please note that Santa Clara Planning's Zoning officer plan for Lehigh's Water Treatment Facility has yet to be reviewed by Santa Clara Planning Commission.and was not referenced in May 25 Lehigh Pond 30 plan.

"Water entering the Facility is first sent through an Ultra-Filtration system, followed by Reverse Osmosis. Sodium Hypochlorite and Citric Acid are used to clean the Ultra-Filtration and Reverse Osmosis systems at an estimated frequency of 1 to 3 months, or as needed. An anti-scalant is also used to clean the Reverse Osmosis system. The water is further filtered using a bio-reactor. The biological system eat a nutrient and convert the metals dissolved in the water into a soluble form. The bio-reactor also creates sulfides. Hydrogen Peroxide is used to neutralize the sulfides in the water. Clean, treated water is finally discharged into Permanente Creek. Any liquid backwash that is not fully treated is sent back to Pond 11 to continue the treatment cycle. solid backwash, including metals and settled biological matter, is cleaned our and disposed of using tote bags." If this last item is the 'sludge' about which I was warned is greatest concern in process, then believe environmental compliance requires its disposal off site and remedial actions need to be specific.

"The chemical involved in the process include Sodium Hypochlorite (bleach), citric acid, Hydrogen Peroxide, a biological nutrient, and an anti-scalamt. The chemicals are stored in the various tanks inside and outside the Facility.

6

In recommended and approved plant design these tanks of chemicals are stored within building. The only outside tank shown is to store backwash' Proximity to earthquake faults demands special integrity in design.

In subsequent"Notice of Exemption from CEQA" of this attachment it amplifies facility auxiliary structures to include "several process water tanks..be installed on concrete pad foundations outside of building...tanks would vary in height from 8 feet to 22.3 feet" On page 2 of document "7 process water tanks to be installed".

At any rate, documentation for Lehigh Water Treatment Facility is deficient in a number of critical elements to extent that fear it could mushroom into a facility with capability to convert Black Mountain water reserves that historically have supported Santa Clara Valley aquifers to a private source of industrial water supply.

Please condition this permit in strict water rights compliance language that cannot be misconstrued or in any way subverted for now or in perpetuity Thank you for all considerations of my concerns in this Matter.

Libby Lucas,

From: Hoem, Christopher <christopher.hoem@pln.sccgov.org>

Sent: Friday, April 28, 2017 2:58 PM

To: Hoem, Christopher

Subject: Lehigh Water Treatment Facility - Zoning Administrator Hearing - May 4

Dear Interested Parties,

The Santa Clara County Zoning Administrator will be conducting a public hearing on May 4th, 2017 to consider several projects, including a proposed Water Treatment Facility at the Lehigh Cement Plant. The agenda for the meeting and staff report for the proposed Facility are located on our website here:

https://www.sccgov.org/sites/dpd/Commissions/ZA/Pages/ZA.aspx (see item #6).

Project plans and other documents are also available for public inspection during regular business hours at the Planning Office (Monday 9:30 to 5:00, Tuesday through Friday 8:00 to 5:00). Questions or comments should be directed to Christopher Hoem at Christopher.Hoem@pln.sccgov.org or 408-299-5784.

Thank you,

Christopher Hoem, AICP Santa Clara County Associate Planner 408-299-5784

Please visit our website at www.sccplanning.org

To look up unincorporated property zoning information: <u>www.SCCpropertyinfo.org</u> Questions on Plan Check Status?, please e-mail: <u>PLN-PermitCenter@pln.sccqov.org</u>

Appendix D Response to Comments

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD SAN FRANCISCO BAY REGION

RESPONSE TO WRITTEN COMMENTS

on Tentative Permit Amendment and Tentative Cease and Desist Order Amendment for
Lehigh Southwest Cement Company and
Hanson Permanente Cement, Inc., Permanente Plant,
Cupertino, Santa Clara County

The Regional Water Board received written comments on a draft NPDES permit amendment (tentative permit amendment) and draft cease and desist order amendment (tentative CDO amendment) distributed on May 12, 2017, for public comment from the following:

- 1. Sierra Club (June 6, 2017)
- 2. U.S. Environmental Protection Agency (June 12, 2017)
- 3. Lehigh Southwest Cement Company and Hanson Permanente Cement, Inc. (June 7, 2017)
- 4. Libby Lucas (June 8 and 12, 2017)

Regional Water Board staff has summarized the comments, shown below in *italics* (paraphrased for brevity), and followed each comment with a response. For the full content and context of the comments, please refer to the comment letters.

This document also contains staff-initiated revisions.

All revisions to the tentative orders are shown with double-underline <u>text</u> for additions and double-strikethrough text for deletions. (Single-underline <u>text</u> and single-strikethrough text represent additions and deletions to the originally-adopted permit and cease and desist order as shown in the tentative orders.)

SIERRA CLUB

Sierra Club Comment 1: Sierra Club objects to the relocation of Discharge Point No. 001 from Pond 4A to the new location approximately one mile downstream. It notes that Lehigh's mining operations depress the groundwater gradient, drawing water from Permanente Creek into the quarry pit. Thus, a significant portion of the flows treated by the final treatment system (and discharged at Discharge Point No. 001) comes from water formerly in the creek at higher elevations. Sierra Club requests that treated water be discharged to approximately the same location and elevation where it was removed.

Sierra Club states that Lehigh's pit dewaters Permanente Creek by 325 to 386 gallons per minute, which often represents the entirety of creek flow in the lower reaches during the dry season. Because the reintroduction of water at Pond 4A counterbalances much of this dewatering, it is critical to maintaining existing creek habitat and conditions. Relocation of

Discharge Point No. 001 from Pond 4A to the downstream location would significantly reduce flows for at least a mile of Permanente Creek, harming the resident trout population, other aquatic species, as well as riparian habitat and species. Sierra Club points out recent observations of trout within Permanente Creek's upper reaches, including several observations in the reach immediately downstream from Pond 4A.

Response: We agree that some of Lehigh's discharge may be necessary upstream to support Permanente Creek aquatic habitat beneficial uses prior to filling the pit and restoring the creek. We revised the tentative orders (1) by revising the definition of Discharge Point No. 001 to authorize discharge throughout the stretch of Permanente Creek adjacent to the Lehigh site, and (2) by adding a permit provision requiring Lehigh to determine the minimum flows needed to protect existing aquatic habitat beneficial uses and to provide those flows as necessary.

We revised Provision 3 of the tentative permit amendment as follows:

3. Revise Permit Table 2 as follows:

Table 2. Discharge Locations

| Discharge Point | Effluent Description | Discharge Point Latitude (North) | Discharge Point Longitude (West) | Receiving Water |
|--------------------|--|--|--|---------------------|
| 001 | Treated quarry dewatering water, Primary Crusher wash water, Crusher Slope Drainage Area stormwater, Cement Plant Reclaim Water System wastewater, Rock Plant aggregate wash water, Truck Wash water, subsurface flow from the East Materials Storage Area (EMSA) (intercepted by the EMSA French drain, EMSA catchment and drainage swales, and any additional related infrastructure), non- stormwater, and stormwater, all discharged from Pond-4A the final treatment system | Approximately <u>37.31801°</u> 37.31713° | Approximately -122.08741° -122.11165° | Permanente Creek |
| | | anywhere betwee 37.32507°N, -12 | re locations en approximately 22.08286°W and -122.11557°W | |
| : | | : | : | : |

We revised Fact Sheet section 3.a for the tentative permit amendment as follows:

3. Revise Permit Table 2.

a. Discharge Point No. 001. This Order amends the effluent description to match the final treatment system design and facility flows as shown in the amended final process flow diagram; it also amends the discharge point location. The Discharger will no longer send process-related flows to Pond 4A; instead, these flows will be sent to the final treatment system and then, which discharges directly to Permanente Creek. The Discharger no longer sends Primary Crusher wash water to Pond 4A because the

Discharger has replaced the Primary Crusher with a new crusher that does not generate process wastewater, as explained in item 2.h above. The amended location of Discharge Point No. 001 is one or more locations in Permanente Creek adjacent to the Facility, providing flexibility to enable the Discharger to ensure flows necessary to support existing Permanente Creek aquatic habitat beneficial uses, while minimizing the need for the Discharger to pump effluent upstream. Treated effluent may be discharged downstream (northwest) of the previous location identified in the Permit as originally adopted, in a concrete-culverted portion of Permanente Creek near Pond 20; the outfall at this location was a previously permitted discharge point under Regional Water Board Order No. R2-2008-0011 (Sand and Gravel General NPDES Permit) and is the same as the Pond 1 emergency overflow discharge point. This location will allow gravity discharge of final treatment system effluent.

We added new Provision 6 to the tentative permit amendment as follows (and renumbered the subsequent provisions):

6. Add new Permit Provision VI.C.7 as follows:

7. Flow Study Plan and Monitoring

The Discharger shall ensure minimum flows in Permanente Creek adjacent to the Facility as necessary to protect existing aquatic habitat beneficial uses until such reaches are disrupted for habitat restoration in accordance with a restoration plan the Regional Water Board authorizes.

- a. By December 1, 2017, the Discharger shall submit a Flow Study Plan to determine the minimum flow necessary to protect existing Permanente Creek aquatic habitat beneficial uses year-round and management measures to sustain such flows.
- b. By March 1, 2018, the Discharger shall submit a Flow Study Report reflecting any and all Regional Water Board staff feedback on the Flow Study Plan. The report shall propose actions necessary to ensure minimum flows necessary to protect existing aquatic habitat beneficial uses. At times, these actions may include pumping some, but not necessarily all, effluent from the final treatment system to upstream reaches. The Flow Study Report shall include monitoring actions to demonstrate flows sufficient to protect existing aquatic habitat beneficial uses.
- c. By May 1, 2018, the Discharger shall implement the actions set forth in the Flow Study Report as necessary to protect existing aquatic habitat beneficial uses. The Discharger shall also report in the cover letter to its monthly self-monitoring reports its findings from the monitoring actions set forth in the Flow Study Report.

d. If the Flow Study Report proposes discharges at any Permanente
Creek location other than the concrete-culverted portion of Permanente
Creek near Pond 20, the Discharger shall ensure that such discharges
do not cause sedimentation or erosion within Permanente Creek
sufficient to cause or contribute to adverse impacts on Permanente
Creek beneficial uses.

We added new Fact Sheet section 6 for the tentative permit amendment as follows (and renumbered the subsequent sections):

6. Add Permit Provision IV.C.7.

This Order adds Permit Provision IV.C.7 to require the Discharger to conduct a study to determine the minimum flows necessary to protect existing Permanente Creek aquatic habitat beneficial uses year-round and to provide such flows until affected reaches are altered as part of a Regional Water Board-authorized habitat restoration project. This provision is necessary to ensure that altering the volume, location, and timing of effluent discharges does not harm existing aquatic habitat beneficial uses between Pond 4A and downstream discharge locations. Aquatic habitat beneficial uses within this reach include cold freshwater habitat (for trout) and preservation of rare, threatened, or endangered species (e.g., California Red-Legged Frogs).

Finally, we revised the Facility Maps (Attachment 2 of the tentative permit amendment and Attachment 1 of the tentative CDO amendment) to include the following text:

Discharge Point No. 001 can be one or more locations in Permanente Creek between approximately 37.32507°N, -122.08286°W and 37.31744°N, -122.11557°W as long as the effluent has first passed through the final treatment system and Monitoring Location EFF-001.

Sierra Club Comment 2: Sierra Club requests that the Regional Water Board not allow Lehigh to discharge final treatment system effluent directly to the city sewer, as indicated in the Revised Final Process Flow Diagrams. Sierra Club states that this water could significantly reduce downstream Permanente Creek flows, raise creek temperatures, and reduce the creek's contribution to Santa Clara Valley's underground drinking water supply.

Response: The tentative permit amendment cannot authorize discharge to the city sewer system because the Regional Water Board does not have jurisdiction to do so. The city must authorize such discharges. The flow diagrams simply recognize the possibility of such authorization. However, diversion to the sanitary sewer of flows sufficient to harm downstream Permanente Creek reaches or to significantly reduce groundwater percolation is unlikely due to the logistics and cost of re-routing discharges to the sewer system.

U.S. ENVIRONMENTAL PROTECTION AGENCY (U.S. EPA)

U.S. EPA Comment 1: U.S. EPA expresses concern that relocating Discharge Point No. 001 could harm Permanente Creek beneficial uses between the existing outfall and the proposed new location. U.S. EPA notes that the Los Angeles Regional Water Board included minimum flow requirements in an NPDES permit for the Las Virgenes Municipal Water District's Tapia Reclamation Facility (NPDES Permit No. CA0056014).

Response: We agree. See our Response to Sierra Club Comment 1.

LEHIGH SOUTHWEST CEMENT COMPANY AND HANSON PERMANENTE CEMENT, INC. (LEHIGH)

Lehigh Comment 1: Lehigh comments that the "Pearl Harbor" tank was inadvertently omitted from the Revised Final Process Flow Diagram and submitted a revised diagram. Lehigh notes that the Pearl Harbor tank is a source of stormwater flows within the Cement Plant Reclaim System, and that adding the label is not a substantive change but is necessary for accuracy.

Response: We agree. We revised the Revised Final Process Flow Diagrams (Attachment 3 of the tentative permit amendment and Attachment 2 of the tentative CDO amendment) to include the Pearl Harbor tank.

Lehigh Comment 2: Lehigh provides more accurate coordinates for Monitoring Location EFF-001.

Response: We agree that revising the coordinates is appropriate and revised Provision 6 of the tentative permit amendment as follows:

6. Revise Permit Monitoring and Reporting Program (Table E-1) as follows:

Table E-1. Monitoring Locations

| Sampling Location Type | Monitoring Location Name | Monitoring Location Description |
|---------------------------|-----------------------------|--|
| Effluent | EFF-001 | Before the final treatment system is constructed and operating in accordance with the final process flow diagram shown in Attachment C, Schematic C-3: A point in the outfall from Pond 4A (Discharge Point No. 901), following treatment and prior to the receiving water, at which all waste tributary to the outfall is present. Latitude 37°,19',1.68" N Longitude 122°,6',41.94" W After the final treatment system is constructed and operating in accordance with the final process flow diagram shown in Attachment C, Schematic C-3: |

| Sampling Monitoring Monitoring Location Type Location Name | | Monitoring Location Description |
|--|---|--|
| | | A point in the outfall from the final treatment system (Discharge Point No. 001), following treatment and prior to the receiving water, at which all waste tributary to the outfall is present. Approximate Latitude 37°, 19', 4.46" N 37°, 19', 3.95" N Approximate Longitude 122°, 5', 14.78" W -122°, 5', 17.84" W |
| : | : | : |

LIBBY LUCAS

June 8, 2017, Correspondence

Ms. Lucas Comment 1: Ms. Lucas comments that the tentative orders do not include temperature criteria, which she believes are essential to preventing impacts to Permanente Creek and San Francisco Bay biota. She requests monitoring at all outfalls to ensure that creek temperatures support California Red-Legged Frogs and trout.

Response: This comment is outside the scope of the proposed amendments, which do not relate to effluent temperatures. Nevertheless, Fact Sheet section IV.C.3.e of the adopted permit explains that it does not contain temperature limitations because the data available at the time of adoption were insufficient to find "reasonable potential" that discharges could cause or contribute to exceedances of Thermal Plan objectives. The permit requires quarterly monitoring of effluent and receiving water temperatures. These data will be used to conduct a new reasonable potential analysis when the Regional Water Board considers permit reissuance in 2019.

Ms. Lucas Comment 2: Ms. Lucas states that she recently observed green algae in the concrete reach of Permanente Creek north of Portland Avenue. She asks whether the Santa Clara Valley Water District should monitor creek conditions in that reach and whether the City of Los Altos should be concerned about creek conditions adjacent to Heritage Oaks Park.

Response: This comment is outside the scope of proposed amendments. The described Permanente Creek reach lies below the Facility, and the Santa Clara Valley Water District and the City of Los Altos are not subject to Lehigh's permit or CDO requirements.

Ms. Lucas Comment 3: Ms. Lucas comments that the Santa Clara Valley Water District is not contributing flow data from its Berry Avenue gauge to assist the Regional Water Board in assessing stream flows and temperatures in the concrete reach of Permanente Creek. Ms. Lucas states that these data are necessary to determine what percentage of creek runoff is entering Santa Clara Valley aquifers. She notes that pulse flows from the creek's upper reaches have helped rainwater reach groundwater basins, and that the Regional Water Board should ensure Lehigh's proposed discharges do not interfere with this groundwater recharge.

Items 6 and 7 Response to Comments Lehigh Southwest Cement Company and Hanson Permanente Cement, Inc. **Response:** This comment is outside the scope to the proposed amendments. Nevertheless, the Santa Clara Valley Water District provides flow data from the Berry Avenue gauge on its website at http://alert.valleywater.org/reports/sgi_report.php?id=1549. The proposed change to the location of Discharge Point No. 001 would not affect creek flows at Berry Avenue.

Ms. Lucas Comment 4: Ms. Lucas expresses concern that the tentative orders may lead to loss of Permanente Creek watershed resources by allowing pumping from drainage ditches, ponds, and pits to the treatment system. She states that beneficial uses may be harmed because the tentative orders fail to regulate the volume and frequency of Lehigh's pumping, except for the 167,000 gallon per hour limit on discharges to the creek. She requests that the Regional Water Board analyze prescriptive and appropriative water rights issues raised by the tentative orders.

Response: This comment is outside the scope of the proposed amendments. The permit regulates wastewater discharges to waters of the United States, not water withdrawals. Moreover, Lehigh does not possess or claim any water rights. Regarding the need to protect watershed resources, see our Response to Sierra Club Comment 1.

June 12, 2017, Correspondence (supplement to earlier correspondence)

Ms. Lucas Comment 5: Ms. Lucas expresses concerns regarding the Santa Clara County Zoning Administrator's recent review of Lehigh's proposed treatment facility. She states that the plans lack a soils analysis despite a lack of vegetation, which could indicate contamination. She says the plans should include vegetated terraces to mitigate the steepness of graded slopes and additional trees to reduce site visibility from the valley.

Response: This comment is outside the scope of the proposed amendments, which do not relate to treatment facility design or Santa Clara County approvals.

Ms. Lucas Comment 6: Ms. Lucas notes that treatment facility plans include an increase in pumping capacity from 400 gallons per minute for the interim treatment system to 1,200 gallons per minute for the final treatment system. She suggests that the increased pumping could harm California Red-Legged Frogs, interfere with water rights, and increase dewatering of Permanente Creek. She specifically mentions the potential for increasing groundwater extraction to increase creek dewatering.

Response: We addressed the effects of the discharges on Permanente Creek habitat in our Response to Sierra Club Comment 1. The proposed amendments do not relate to pumping capacities or water rights. The Regional Water Board has already adopted the permit and CDO with requirements to construct and operate the final treatment system at a capacity of up to 1,200 gallons per minute. Although this final treatment system will be able to treat more wastewater than the interim treatment system, the increased flow will not result from groundwater extraction wells. Instead, the flow will be treated wastewater that Lehigh would otherwise have discharged untreated to Permanente Creek.

We do not expect the treated discharges to harm California Red-Legged Frogs. The adopted permit contains effluent limits to protect rare and endangered species. Moreover, Fact Sheet Items 6 and 7 Response to Comments
Lehigh Southwest Cement Company and
Hanson Permanente Cement, Inc.

section III.C.8 of the adopted permit states that it does not authorize any taking of a threatened or endangered species and that Lehigh is responsible for meeting applicable Endangered Species Act requirements. In addition, we added requirements to the tentative permit amendment for Lehigh to complete a Flow Study Plan and a Flow Study Report to protect beneficial uses, including preservation of rare and endangered species, within the stretch of Permanente Creek between Pond 4A and downstream discharge locations, as described in our Response to Sierra Club Comment 1.

Ms. Lucas Comment 7: Ms. Lucas expresses concern that backwash solids require offsite disposal.

Response: This comment is outside the scope of the proposed amendments, which do not relate to sludge disposal. The permit and CDO only regulate wastewater discharges to Permanente Creek; they do not authorize onsite sludge disposal. Offsite disposal is subject to oversight by other regulatory agencies, depending on how the sludge is disposed.

Ms. Lucas Comment 8: Ms. Lucas notes that some treatment facility plans describe chemical storage in tanks outdoors, while others call for all chemicals to be stored indoors. She points out seismic risks.

Response: This comment is outside the scope of the proposed amendments, which do not relate to chemical storage. Provision 6 of the adopted permit establishes industrial stormwater controls to address any water quality risks associated with outdoor chemical storage. Provision I.C.1 of Attachment G of the adopted permit requires a contingency plan, which should address seismic concerns.

Ms. Lucas Comment 9: Ms. Lucas reiterates that Lehigh's treatment facility might divert water from Santa Clara Valley aquifers and requests that the permit require compliance with water rights laws.

Response: This comment is outside the scope of the proposed amendments, which do not relate to water rights. The permit and CDO implement Clean Water Act and Water Code requirements related to the NPDES program, which applies only to pollutant discharges to waters of the United States.

STAFF-INITIATED CHANGES

In addition to making minor editorial and formatting changes, we revised the Facility Maps (Attachment 2 of the tentative permit amendment and Attachment 1 of the tentative CDO amendment) to remove the label "FTS Discharge 001" south of Pond 20. This label had indicated the location of Discharge Point No. 001 in the originally adopted permit.